Summer 2005

Kansas Environmental News

Secretary's Corner

The KDHE management team and I recently completed a tour of the agency district offices to visit with staff and to get comments from Kansans through a series of public meetings. This was the first year we conducted the public meetings and we were pleased with the turn out as well as the very useful feedback. We plan to hold these meetings next year, but encourage all of our stakeholders to contact us anytime with comments or questions and we will do our best to assist in any way possible.

In addition, KDHE recently received some wonderful feedback from our partners at the Environmental Protection Agency (EPA). EPA officials praised Kansas for leading the nation in the number of composting and Household Hazardous Waste (HHW) programs among states where these activities are not mandated by state laws or regulations. EPA is gathering information to share with other states to increase these practices as part of their nationwide Resource Conservation Challenge. They sought input from KDHE on how such successful programs were established in Kansas. Our growth in composting and HHW programs has resulted from a combination of factors including legislative support for grant funding to local governments and private businesses, technical assistance and training offered primarily at the annual WORKS Conference, and the many individuals committed to waste reduction in nearly every county. These programs are important because they divert waste that would otherwise go to landfills or potentially contaminate our land and groundwater, if not disposed of properly. This success would not be possible without the support of KDHE from Governor Sebelius, legislators, communities, and businesses all desiring to see our state's natural resources preserved and protected.

As we move into the extremely hot part of the summer, it's time to begin thinking about steps to take to protect our air quality. With the temperatures climbing and the heat staying with us for lengthy periods of time, we expect to see ozone levels rise. We can all take steps to improve our community's air quality this summer by car pooling, waiting until evening to fuel up our cars and other gas-powered equipment, and reducing energy use during the peak hours of the day. Let's do all that we can to protect our state and the air that we breathe.

KDHE is embarking on a new campaign to protect Kansans focusing on children in schools, adults in the work place, and our seniors. The program called HealthKANSAS: *Taking Steps Together* targets three behaviors: improving nutrition, increasing physical activity and eliminating tobacco use. Many studies have shown that a person's environment can impact their choices in these three areas, therefore, KDHE will be working on ways to assist in improving the environment in schools, the workplace, and locations providing service to seniors. Efforts will include looking at ways to improve food choices and how to encourage individuals to participate in additional physical activities. More information will be provided later. We encourage you to visit *www.healthykansas.org* for additional updates. Have a safe and healthy summer!

Be Well,

Roderick L. Bremby

Inside this issue:

KDHE to Host Annual Environment Conference

by Cathy Colglazier, KDHE Public Advocate

The Kansas Department of Health and Environment will host the Kansas Environment Conference on August 23 – 25, 2005 at the Hyatt Regency in Wichita. The annual conference continues to grow with approximately 400 participants last year. The conference will begin on August 23 with the Basic Environmental Regulatory Training being offered from 3:00 p.m. – 6:00 p.m. August 24 will start off with a keynote presentation by Mr. David Wann of the Sustainable Futures Society. Mr. Wann, coauthor of *Affluenza: The All-Consuming Epidemic,* will discuss the social and environmental cost of materialism and overconsumption and what we can do about it to create a richer and more sustainable lifestyle.

This year's conference agenda is full of interesting sessions that will provide a wealth of information for conference participants. Session topics include: regulatory update; common air and waste violations (and how to avoid/correct violations); homeland security; Spill Prevention, Control and Countermeasure (SPCC) plans ; spill reporting and spill response; pollution prevention case studies; environmental management systems; indoor air quality; corrective action success stories; air permit program update; managing E-waste and other special wastes; environmental quiz bowl; and many more!

In addition to the conference sessions, over 40 vendors will be on hand to provide information. The annual Pollution Prevention (P2) awards will be presented during the luncheon on August 24. Applications were due June 24 and are currently being reviewed by the award committee.

Registration fee is $110, if registered by August 17. Don't miss this opportunity to become informed on environmental issues, regulatory information, and P2 ideas! For a conference agenda and registration form, go to *www.kdhe.state.ks.us/sbcs/environment_conf.html* or call KDHE at 785-296-6603.

KDHE and EPA Invite Public to Open Environmental Discussion

by Karen Flournoy, US EPA Region 7

The public is encouraged to attend a meeting with senior managers from the Kansas Department of Health and Environment (KDHE) and the U.S. Environmental Protection Agency (EPA) at an Open Discussion on August 25. This discussion will be held from 1 to 4 p.m., immediately following the 2005 Kansas Environment Conference at the Hyatt Regency/Century II Convention Center in Wichita. The Open Discussion has no separate admission fee. The discussion is designed to help provide EPA with information to update its regional strategic plan, which sets the environmental priorities for EPA Region 7 (Iowa, Kansas, Missouri and Nebraska).

Ron Hammerschmidt, director of the KDHE Division of Environment, and Jim Gulliford, EPA Region 7 administrator, will present overviews of the current status of the Kansas environment at the opening plenary session. Attendees will have the opportunity during the afternoon to share their views on these agencies' priorities.

Structured breakout sessions will follow the plenary session, giving attendees the opportunity to provide input to KDHE and EPA on future environmental challenges in Kansas. Your perspectives gleaned from these "breakouts" will help these agencies shape the focus of their upcoming activities. If you're concerned about future challenges such as small community water and wastewater infrastructure, water quality, drought, nonpoint source pollution, waste management and air quality, these are sessions you won't want to miss.

The Open Discussion will conclude with a second plenary session, where each breakout group will present a brief summary of the future environmental challenges identified. All attendees will then be able to give further input on these challenges. The rest of this time will be a "listening session," where questions can be directed to Dr. Hammerschmidt and Mr. Gulliford about the Kansas environment now and in the future.

For more information about the Open Discussion, please e-mail Dick Sumpter, EPA Region 7, at *sumpter.dick@epa.gov*. To learn more about the 2005 Kansas Environment Conference, please e-mail Cathy Colglazier at *ccolglaz@kdhe.state.ks.us*. We hope to see you at both events!

KDHE Regulations in Process

The following table depicts the KDHE regulations that are in the process of being developed, amended, or revoked. If you have questions on any of the regulations, feel free to contact Cathy Colglazier at 800-357-6087.

Regulation	Division Draft	EPA Review	DOA Review	AG Review	Public Hearing	Effective
Waste Management						
Definitions (A)	1/05	N/A	*10/05	*11/05	*1/06	*3/06
Tires (A)	9/04	N/A	*10/05	*11/05	*1/06	*3/06
Hazardous Waste Update (A)	*6/06	*6/06	*7/06	*8/06	*10/06	*12/06
Industrial Landfills	*1/06	N/A	*3/06	*4/06	*6/06	*8/06
Air and Radiation						
Acid Rain Permits (A)	*7/05	N/A	*9/05	*10/05	*12/05	*1/06
Acid Rain Nox (N)	*7/05	N/A	*9/05	*10/05	*12/05	*1/06
Definitions (A)	3/05	N/A	*8/05	*9/05	*12/05	*1/06
Inventory Report Regs	7/04	N/A	1/05	2/05	*7/05	*8/05
Transportation Conformity (A)	10/04	N/A	*9/05	*10/05	*12/05	*1/06
Permitting Rules (A)	*7/05	N/A	*8/05	*9/05	*12/05	*2/06
Radiation Registration Licensing, Safety Standards and Requirements	9/03	N/A	7/05	7/05	9/05	*11/05
Water						
Surface WQS	5/04	4/05	6/04	6/04	10/04	12/04
Geology						
Water Well (GMD #2) (N)	2/04	N/A	1/05	3/05	6/05	*7/05
Livestock Waste Management						
Groundwater (N) (A) (R)	12/03	N/A	5/04	11/04	3/05	*10/05
Environmental Field Services						
Surface WQS/Register	1/05	N/A	1/05	1/05	4/05	5/05
Environmental Remediation						
Surface Mining	9/03	N/A	*12/05	*2/06	*6/06	*9/06
Environmental Use Control	6/04	N/A	*7/05	*10/05	*2/06	*6/06

New (N), Amended (A), Revoked (R)
* Denotes projected date.

Updated 7/1/05

P2 Case Study - Precision Pattern, Inc.

by Nancy Larson, KSU Pollution Prevention Institute

Precision Pattern, Inc. is a division of Decrane Aircraft that fabricates world-class aircraft interiors. The company uses exotic hardwoods, veneers, and state-of-the-art materials to craft interiors that are lightweight, durable, and meet or exceed industry standards. Their manufacturing process includes milling and cutting of lumber, veneering, gluing, machining, coating, assembly, and finishing. This detailed, highly specialized manufacturing process uses industrial chemicals and processes like painting, coatings, solvents, and adhesives. *"We have worked with the Kansas State University Pollution Prevention Institute (PPI) periodically since 1996,"* explains Bryan Urban, facilities manager. Over the past several years, Precision Pattern, Inc. (Precision Pattern) has changed material, technology, and their processes to implement pollution prevention (P2) opportunities that have resulted in drastic waste reductions, emissions prevention, cost savings, and decreased regulatory burden. In addition to changes to their coating, solvent, and adhesive processes, Precision Pattern has also increased energy efficiency and documented financial savings and solid waste reductions related to their air handling and sanding room filter systems. Read on to see that the numbers really demonstrate environmental improvements and significant financial savings to make Precision Pattern one of Kansas' Best of the Best!

Many of the products Precision Pattern manufactures require the use of contact adhesive. Prior to 2004, the facility used a little more than 1,300 gallons of contact adhesive each year at a total raw material cost of about $12,500. Precision Pattern had been using constant agitation and heat in order to keep the adhesive fluid enough to flow from their guns. The heat and agitation released volatile organic compounds (VOCs) and caused the adhesive to dry out before it could be used up. This cost Precision Pattern an estimated $8,800 per year in lost raw material and disposal fees.

Precision Pattern has now made changes that cut this annual expense and loss to only $550, a 94 percent reduction! As simple as it may seem, Precision Pattern first talked to the vendor and then successfully changed the process, eliminating the heat and minimizing the agitation of the adhesive. According to Urban, *"The material is now mixed once a day for 10 minutes only, and we upgraded our spray gun nozzles to achieve the needed pattern,"* reducing overspray, again saving raw material. This change in process has resulted in an annual savings of $8,227, a reduction in raw materials of 880 gallons, a decrease in hazardous waste of 15 drums or 6,000 pounds, and a decrease in VOC emissions of 2.5 tons.

Precision Pattern made two major changes within their coatings operations that have resulted in big savings and employee satisfaction. They recently upgraded their coatings application equipment—a change in technology, and now use a dedicated paint booth for their chrome-coating application—a change in process. *"They spend a lot less time each day cleaning their equipment and now have more time to get their coating work done,"* explains Urban, when discussing the benefits of changing to their new coatings systems. For years Precision Pattern used a system that mixed coatings at the pump and then used long, 25-foot spray lines to deliver the coating to the gun and then the part. One of the two new systems now mixes the coatings and solvent at the gun, not at the pump like the old system. The second system uses an air siphon-fed system that pulls the paint from a cup located just below the gun. It provides a better seal, slowing hardening time and extending the life of the paint. It is used for projects that require a solid color. This siphon-fed system requires technicians clean only the spray nozzles between color changes. Startup costs of the new systems were about $17,500 and $6,000, respectively.

Both of the new systems eliminate the need to clean the 25 feet of spray lines, reducing solvent and premixed raw material waste—significantly reducing solvent use and raw material loss. Urban estimates this change in technology has reduced their solvent use for gun cleaning from 12 gallons per day to five gallons per day, a 58 percent decrease in solvent use just within the last year. During the first five months of 2004, Precision Pattern saw a 38 percent increase in production but still experienced a 43 percent decrease in hazardous waste generated from the paint department. In addition, coating technicians state the new systems reduce their total time spent cleaning and refilling coatings by as much as three hours per day. Maintenance manager, Chuck Harold, adds, *"We used to be called out at least weekly to fix a problem related to the old paint system. This new system has saved maintenance several hours a month."* This brings total labor savings due to this change in technology to more than $15,000 annually.

The other coatings change Precision Pattern recently made was to move all of the chrome primer coating to a dedicated booth. *"We call it the green booth, because it is dedicated for the use of chromium primer,"* explains Urban. Changing their process to use of a dedicated booth for their chromium primer allows them to segregate and limit their chromium contaminated hazardous wastes. This results in decreasing hazardous waste costs and liabilities related to handling a regulated metal (chromium) waste stream.

Inventory Control: *Change the process*
Urban also instituted tight inventory tracking and control methods as some of his first P2 measures. Inventory control measures instituted include the following:

Developed a detailed database that tracks material purchases and uses. This helps with inventory control, and waste and air emissions reports.

All chemical purchases must be reviewed and approved by environmental staff. Weekly inventory dictates purchases, not just requests from individual workers. This has prevented duplicate and excessive material from being ordered.

Reviewed processes and purchases so that job specific purchases are made, preventing storage of large quantities of material and their possible expiration before use. Do not always "buy the good deal."

Receiving staff inspects all new arrivals for proper order and quantities, then dates and labels containers for tracking purposes.

Our main objectives are to reduce the amount of hazardous materials we use, reduce the amount of hazardous wastes we generate, and reduce the amount of air emissions we put into our environment," Urban stated in a presentation to an audience in 2002.

Lighting: *Change the process*
Other simple changes Precision Pattern has made that have added up financially include changing their shop lighting positioning and lamps. *"By adjusting the height and distance between fixtures, we doubled the foot candles at the shop benches using the same number of lights,"* explains Harold. Their lighting vendor used a computer-aided program to provide shop-specific recommendations, including increasing the lighting voltage and decreasing the amperage to cut power use by 30 percent. These changes, along with use of high efficiency lights and lamps, have saved Harold and his maintenance staff about one hour per day in time they used to dedicate to changing out lamps. That's a labor savings of about $4,680 annually.

Filter systems: *Change the material*
Precision Pattern has also switched to using reusable washable filters at their seven wood sanding tables and in their air handlers or HVAC systems. Initial cost for the sanding table filters was about $10,400. The filters have been in place now for more than three years. The savings over purchasing new disposable filters at $120 per table each month is an annual savings of about $10,080. Capital expenses for the new system are just slightly higher than annual expenses for the disposable system. Accounting for the added labor expenses of $5,824 annually to wash the filters, Precision Pattern has already saved about $12,768, or an annual savings of $4,256. This change in the process has also reduced solid waste volumes going to the landfill. The change out to reusable washable filters for the 22 air handlers is not yet complete, but Harold estimates the capital cost for supplying reusable filters to all units will be $7,360. Annual cost of the current system using disposable filters is $25,168. With the payback on the filters less than four months, and an average life of five to eight years, this change in technology will equate to a minimum savings of $118,000 over the next five years.

Through continual improvement, Precision Pattern has documented VOCs, and total and single HAP reductions of 21.5, 9.6, and 2.3 tons, respectively, from 2001 through mid 2004. They decreased their hazardous waste generation by 17 tons between 2000 and 2003 and are saving about $70,000 annually in avoided costs and labor. The numbers make it easy to see that embracing simple P2 methods means savings to the environment and the bottom line for Precision Pattern, Inc.—making them one of Kansas' Best of the Best.

Where can I get more information?
PPI operates the Small Business Environmental Assistance Program (SBEAP) for the state of Kansas. SBEAP maintains a toll-free technical hotline, and can visit your facility to review compliance issues and identify pollution prevention opportunities. Call SBEAP at 800-578-8898 or visit our Web site at *www.sbeap.org* for free, confidential technical assistance. Bryan Urban of Precision Pattern can be contacted at 316-721-3100.

Performance Track Rewards Top Environmental Performers

by Cathy Colglazier, KDHE Public Advocate

The U.S. Environmental Protection Agency's National Environmental Performance Track (Performance Track) program recognizes and rewards facilities that consistently exceed regulatory requirements, work closely with their communities, and excel in protecting the environment and public health.

Performance Track is based on the premise that government should complement existing programs with new tools and strategies that not only protect people and the environment, but also capture opportunities for reducing costs and spurring technological innovation. The program's mission is to improve environmental performance, transform relationships, and encourage innovation. Performance Track encourages performance improvements by supporting environmental goals that go beyond compliance, offering recommendations during site visits, and providing opportunities for the sharing of information among members. The program transforms the relationship between regulators and regulated facilities to make them more collaborative, cooperative, and focused on results. Innovation is encouraged through peer networking, regulatory changes, and the program's focus on fostering a culture of continuous improvement.

Launched in June 2000, the program has more than 350 members in 46 states and Puerto Rico, representing virtually every manufacturing sector as well as facilities in the public sector. All U.S. facilities, large and small, public and private, may apply to Performance Track. Performance Track is designed to recognize facilities that consistently meet their legal requirements and have implemented high-quality environmental management systems. Performance Track encourages facilities to continuously improve their environmental performance and to work closely with their community and employees. Once accepted, members receive a range of benefits and incentives to motivate and enable them to make further improvements.

For more information on Performance Track, go to *http://www.epa.gov/performancetrack* or contact Chet McLaughlin of EPA Region 7 at 913-551-7666.

National Brownfields Conference to be Held in Denver

by Bridget Wilson, KDHE Bureau of Environmental Remediation

November 2 - 4, 2005
Colorado Convention Center
Denver, Colorado

Join more than 4,000 participants at the Colorado Convention Center in Denver, CO, November 2-4, 2005 for the largest conference of its kind, *Brownfields 2005: Reaching New Heights in Redevelopment*. This premier international event is the official, Environmental Protection Agency (EPA)- and the International City/County Management Association (ICMA)-cosponsored conference focused on redeveloping brownfield properties. Now in its 10th year, the conference brings together stakeholders from the private sector, government agencies, and nonprofit organizations for a full three days of educational sessions and networking. KDHE is pleased to be an official endorser for this national conference.

The educational program will cover a full spectrum of subjects ranging from cleanup, financing, public policy, economic development, real estate, job training and creation, health and safety and much more. In addition to the technical program the conference includes several plenary sessions, hands-on mobile workshops, networking opportunities, gala receptions, and a tradeshow and exhibit hall. Registration is **FREE** for this event and can be done online at www.brownfields2005.org.

Does Your Parts Washer Generate Hazardous Waste?

by Rebecca Wenner, KDHE Bureau of Waste Management

Has someone tried to sell you a non-hazardous parts washer sink? Has someone tried to tell you that as long as the flashpoint of your parts washer solvent is above 140 degrees Fahrenheit on the Material Safety Data Sheet (MSDS) that it is non-hazardous? You should always remember that as the generator, you are responsible for determining whether or not your waste is hazardous and how it should be properly managed and disposed. Parts washers are used in a variety of ways across many types of industries. They vary not only in the type of product used in them, but also in how and what they are cleaning. Some may be used to degrease engine parts at auto repair shops, others may be used at foundries to remove oil, and still others could be used at plating shops. Each of these industries and uses could introduce a variety of contaminants to the parts washer fluids.

Some parts washers "recycle" or "regenerate" the fluids to ensure that it is clean. When done in a closed-loop process, these machines generate very little waste. The fluids in this type of machine generally need to be added to due to use and evaporation, but should never need to be removed from the unit. These units typically will generate solids or grit through screens, and also will sometimes generate an oily waste that may be a fluid or sludge consistency. Both the solids (grit) and the oily waste stream should be tested to ensure that they are not hazardous. The analysis that would be required would depend on the type of industry and equipment that the parts washer is cleaning. The typical analysis would be heavy metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver), using a Toxicity Characteristic Leaching Procedure (TCLP) extraction. If there is no chance of a particular metal showing up, then there is no need to analyze for it, which could save some money. An example of this could be mercury, which is not used in very many industries. It may also be necessary to test any oily fluids coming out of the machine for flashpoint.

Other parts washers may generate a variety of waste streams including solids (grit, fines, etc. from filters), filters, sludges, and fluids. These waste streams can be evaluated individually, or in a combination to determine whether or not they are hazardous. If a combination or composite of the wastes is being evaluated, then a representative sample should be collected which includes a proportional amount of each type of waste generated by the unit. Whether evaluating the wastes individually or in combination, the sample should be analyzed for all applicable heavy metals (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver), using a TCLP extraction. It may also be necessary to test the liquid portion for flashpoint to ensure that the flashpoint of the waste is above 140 degrees Fahrenheit. A flashpoint analysis may not be necessary if the fluid has an aqueous base and is listed above 150 degrees on the MSDS, and there is no chance that other fluids (solvents) have been added to the parts washer unit during use.

If the liquid in the parts washer is a solvent (not aqueous based), then it could be a listed hazardous waste and it could also be characteristic for a volatile compound found on the TCLP list. If using a solvent in your parts washer, or if there is any chance an organic (solvent, gasoline, etc.) has been added to your parts washer, you should also analyze the liquid for TCLP Volatiles and check the F-lists in 40 CFR 261 Appendix VII.

Any facility with several parts washers may want to evaluate each one individually in case there are differences in the frequency of cleaning, different products being added during use, differences in how they are used, etc. Remember to identify which analysis goes with which unit. It is also important to remember that all analytical results must be kept on-site for a minimum of three years from the time that the waste is no longer being generated.

For additional information on parts washers and waste management issues in Kansas, check out the following websites: *www.kdhe.state.ks.us* and *www.sbeap.org*.

Are you a small business that has questions regarding compliance with environmental regulations or permits? Don't hesitate to call Kansas State University's Small Business Environmental Assistance Program for free, confidential, technical assistance! Simply call (800) 578-8898.

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